April 14, 2022

Vanessa A. Countryman,
Secretary,
Securities and Exchange Commission
100 F Street NE, Washington, D.C. 20549

Re: Proposed Amendments Regarding the Definition of "Exchange" and Alternative Trading Systems (ATSs) That Trade U.S. Treasury and Agency Securities, National Market System (NMS) Stock, and Other Securities, RIN 3235—AM45, File Number S7-02-22

Dear Ms. Countryman:

We write to request clarification that the amendments proposed in the above-captioned rulemaking, if finalized, do not apply to the decentralized systems at the heart of the burgeoning blockchain revolution. The proposal does not mention cryptocurrency, blockchain technology generally, or their applications, and rightly so, for the decentralized systems that run on blockchain differ vastly, in purpose and most importantly operation, from securities exchanges. Nor, for that matter, do they have anything to do in most instances with securities. Those networks which may superficially appear most analogous to securities exchanges are, upon closer scrutiny, better characterized as "anti-exchanges" because their functionality and value proposition derives primarily from their decentralization. Nevertheless, even though these systems are far from the exchanges the Exchange Act of 1934 has in mind, and the proposal never actually addresses these systems, some of the proposal's language may be read to cover these systems, probably inadvertently. We therefore request that any final rule make clear that blockchain-based systems do not qualify as exchanges even if certain of the tokens they support were deemed securities as a matter of law.

INTRODUCTION

ConsenSys is the leading programmable blockchain software company building the digital economy of tomorrow. Our suite of products serves millions of users and developers, supports billions of queries, and has facilitated growth and trade in the trillion dollar global market built upon digital assets. Our mission is a grand one that we attempt to undertake humbly: to pave the way for new economic systems that are more open, efficient, and secure.

The foundation of these new economic systems is decentralized protocol technology, of which blockchain technology is currently the dominant example, and the world-changing innovation that began with the invention of Nakamoto consensus. Blockchain's core innovation is the storage of data across a network whose participants collaborate to own, monitor, run, fix, and update the network. This type of network architecture was largely impossible before 2009, when the centralized, read/write internet of the day was hitting its major growth spurt. It means, among other things, that we can have networks where no one person or organization controls the data—and thereby enjoys the power attendant to that control—and that network participants are able to interact on a peer-to-peer basis using trust software performing all middleman services rather than depending on an intermediary.

Blockchain thus offers freedom from the risks of bad action by intermediaries, such as abuse of market power, fraud, censorship, or failure to secure assets and data against inside or outside attack, as well as from costs inherent in intermediation such as delay. It also offers new abilities for communities of businesses, big and small, and individuals, wealthy and not, from around the world to engage in not only the exchange of information but also economic activity directly with each other.

Blockchain is a new technology, but already it has shown its potential to transform our economies, making them both more productive and more just. By getting rid of the intermediaries in many transactions, blockchain frees up value that may be used to lower consumer prices, invest in new ideas, build small businesses, and raise wages. By moving away from systems dependent on a centralized entity which represents a single point of control or failure, blockchain promotes system security and resilience and lowers the risk and hence costs of investment. By mitigating the circumstances that give rise to powerful intermediaries, blockchain redresses the power imbalance that long has favored entrenched, ossified interests over the ingenuity and flexibility of the little guy or the thoughtful innovator. And by potentially making banking more secure, affordable, and accessible, blockchain offers a path toward financial inclusion for the un- and under-banked.

To date, ConsenSys has focused its efforts on the Ethereum protocol, which is the largest programmable blockchain network and ecosystem in the world. Ethereum leads the field in business adoption, developer community, and in the creation and use of new, alternative rails to engage in commercial and financial transactions and build global, online communities.

Our suite of products enable developers, enterprises, and people around the world to build and utilize next-generation web applications, launch novel, community-created and managed financial networks, and access the decentralized web. Our products include MetaMask, which is the world's most popular digital wallet and decentralized web gateway; Infura, which provides instant, reliable, and scalable access to Ethereum and other networks; Truffle, which is the most utilized tool for developing Ethereum applications; Codefi, which allows businesses to digitize assets and decentralized financial instruments; Diligence, which offers comprehensive security audits and tools for decentralized smart contracts; and Quorum, which assists software development businesses to build applications on permissioned implementations of the Ethereum technology. Quorum services many organizations in various industries, including Microsoft and

Starbucks. We also provide class-leading professional services to advise clients around the world on how they might harness this new technology to create new opportunities and to more efficiently address challenges, clients which include many countries currently exploring the functionality of central bank digital currencies.

We write out of concern that some language in the proposed rule may inadvertently designate decentralized systems, such as some of those built on Ethereum, as exchanges within the meaning of the Exchange Act of 1934 (the "'34 Act") if those systems are used to transact in cryptocurrencies that are misconstrued as securities. We do not believe it likely that the Commission intends the proposal to be so broad. After all, as we explain below, the decentralized systems that run on blockchain are in many respects the opposite of the centralized exchanges that Congress set out to regulate in the '34 Act. Moreover, the proposal does not mention cryptocurrency, blockchain, or decentralized finance, let alone explain how the rigorous requirements of the '34 Act could sensibly be applied in the blockchain context. We certainly would never expect or be inclined to believe the Commission would take the extraordinary step of covering blockchain-based systems *sub silentio*. Nevertheless, for the sake of providing regulatory clarity for the burgeoning blockchain sector, we urge the Commission to declare expressly that blockchain-based networks do not fall within the scope of the amendments at issue here.

In the unlikely event that the Commission intends to designate blockchain-based networks as exchanges, we must point out that a regulation finalizing the proposal as written would violate the '34 Act, the Administrative Procedure Act (the "APA"), and the U.S. Constitution. The text and purpose of the '34 Act leave no doubt that Congress intended to treat as exchanges only those places and facilities that match up orders, not those that help potential buyers search for potential sellers, let alone those that might possibly serve that purpose, at least in part, without ever intending to. The Commission offers a different interpretation of the statutory definition of exchange based on its desire to cover certain communication protocol systems ("CPSs") as *broker-dealers*, but that desire is simply irrelevant to the meaning Congress gave the word *exchange*. The proposal would jettison Congress's clear regulatory framework for a poorly-demarcated regime that inflicts meaningful uncertainty costs on software developers and millions of others in the technology sector who build or maintain systems through which the public interacts—all for the sake of speculative benefits that the proposal fails to compare to its admitted costs. And on top of all this, the proposal—without conspicuous self-reflection—regulates speech on the basis of its content in violation of the First Amendment.

DISCUSSION

I. Today's Blockchain-Based Systems Are the Opposite of Exchanges.

A. Centralization Is the Defining Feature of Exchanges under the '34 Act.

The Great Crash of 1929 exposed grave weaknesses in America's financial system. Responding to the Crash, the Senate Committee on Banking and Currency in 1932 launched what became known as the Pecora investigation, so named after the chief investigative counsel

Ferdinand Pecora. The investigation examined many aspects of American finance, with a special focus on securities exchanges.

The investigation's final report explained that securities exchanges (hereinafter "exchanges" in the interest of simplicity) played a critical role in American finance due to their *centrality*. The "primary function" of exchanges is "to furnish[] open markets for securities where supply and demand may freely meet."[1] By bringing together a critical mass of buyers and sellers in auction-type proceedings to match bids with asks, exchanges facilitate price discovery, establishing a market price at which potential buyers and sellers can transact in a given security at a given moment. Innovations in communication technology meant that the "prices established and offered in … transactions" on the exchanges "are generally disseminated and quoted throughout the United States and foreign countries."[2] For this reason the market prices set as a result of exchanges performing their middleman functions "establish[] the prices at which securities are bought and sold" far from the exchanges themselves and affect in real-time the net worth of individuals and institutions.[3] Serving as the intermediaries in transactions that, in aggregate, set securities prices gave the exchanges—and their members—enormous influence, for good or ill, over the national economy. That influence was seen at its most baleful in the 1929 Crash which precipitated the Great Depression.[4] Thus, the exchanges were important not because many people traded on them—to the contrary, the investigation's report explained that "only a fraction of the multitude who now own securities can be regarded as actively trading" on them[5]—but because "the operations of these few profoundly affect the holdings of all."[6]

The exchanges played a central role in another sense: they intermediated between investors across the country, as well as between investors and financial insiders. This intermediating role for distant and unsophisticated investors created possibilities for malfeasance. The investigation discovered that conflicts of interest and manipulative practices were common in exchange operations[7] and that the exchanges themselves showed limited

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[1] *Stock Exchange Practices: Report of the Committee on Banking and Currency* 81 (June 16, 1934), available at https://fraser.stlouisfed.org/files/docs/publications/sensep/sensep_rpt.pdf?utm_source=direct_download.

[2] '34 Act § 2(2).

[3] *Id.*

[4] *Stock Exchange Practices*, *supra* n.1, at 7.

[5] *Id.* at 5.

[6] '34 Act § 2(2).

[7] *Stock Exchange Practices*, *supra* n.1, at 19-20, 30-54.

interest in curbing these practices.[8] Indeed, the investigation concluded that the interests of the exchanges themselves "frequently conflicted with the public interest."[9] Congress concluded that the manipulation of prices for which the exchanges' central intermediating role paved the way, combined with the national dissemination of such prices, gave "rise to excessive speculation, resulting in sudden and unreasonable fluctuations in the prices of securities which … cause alternatively unreasonable expansion and unreasonable contraction of the volume of credit."[10]

The '34 Act made clear Congress's view that the exchanges warranted regulation due to the central operational role they played, finding that they had power to determine securities prices across the country and that manipulation of those prices by exchange insiders could therefore cause widespread harm.[11] It was this uniquely central role of the exchanges that set them apart from private sales of securities from one private person to another, which the Act did not regulate (and which remain unregulated today).

The '34 Act's provisions regulating exchanges, and their members, are tailored to their outsized role in the economic lives of Americans who primarily enjoy access to liquid securities markets only through them. The Act adopts an aggressive, hands-on approach justified only because the exchanges, by acting as intermediaries to securities transactions, set nationwide securities prices and therefore directly affect the good of the whole country in a way that is true for very few other businesses.

Unlike almost any other regulatory regime, the '34 Act requires federal approval before an exchange may begin operations.[12] Recognizing the national interest that attends the establishment of each exchange, the Act demands that the Commission take public comment on each application to register as an exchange.[13] The Act essentially deputizes the exchanges as agents of federal securities policy, predicating registration of an exchange on the Commission's finding that the exchange "has the capacity to be able to carry out the purposes of" the '34 Act.[14] In recognition of the dangers arising from the exchanges' role as intermediators, the '34 Act demands that exchanges take extensive steps to prevent misconduct by exchange insiders, including by designing rules "to prevent fraudulent and manipulative acts and practices, to

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[8] *Id.* at 20, 80-81.

[9] *Id.* at 81.

[10] '34 Act § 2(3).

[11] *Id.* § 2(2)-(4).

[12] *Id.* § 5.

[13] *Id.* § 19(a)(1).

[14] *Id.* § 6(b)(1).

promote just and equitable principles of trade"[15] and by admitting as members only brokers and dealers registered with the Commission and subject to its oversight.[16] And it requires exchanges to secure Commission approval for each change to their rules.[17]

It should come as no surprise that the '34 Act defines the term "exchange" with reference to the central operational role exchanges play in matching buyers and sellers and executing their transactions. An exchange, the Act explains, is a group that provides a marketplace or facilities "for bringing together purchasers and sellers of securities."[18] As we discuss at length below, the definition thus singles out the two features that make exchanges central: 1) the assembly of a critical mass of buyers and sellers that allows exchanges to facilitate efficient price discovery and hence the setting of a market price, and 2) the intermediating function of exchanges. The '34 Act's definition of "exchange" thus tracks Congress's clear focus on the central operational role of exchanges.

From time to time the proposal seems to suggest that the scope of the statutory term "exchange" should be determined on the basis of the number of people who use a particular instrument of trading.[19] But that is not the decisive question, for Congress did not regulate exchanges the way it did because many people use them. To the contrary, as noted above, the Pecora investigation's report explained that most investors do *not* use the exchanges. Rather, what makes exchanges suitable for the intensive regulatory regime of the '34 Act is their *centrality*: they set nationally influential market prices that are susceptible to manipulation by exchange insiders. That is why the '34 Act goes far beyond the kinds of protections typically afforded in the customer protection context to enact one of the most demanding and proactive supervisory regimes known to the law.

Indeed, the question of regulation of a financial instrumentality as an exchange is not about how *important* the instrumentality is at all. Surely among the most important financial instrumentalities is retail banking, but Congress did not choose to regulate it using the framework that it created for exchanges. The reason is that, while tremendously important (and subject to appropriate regulation under other federal and state statutes), retail banking is not *central* in the sense of both creating national market prices and intermediating for the unsophisticated.

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[15] *Id.* § 6(b)(5).

[16] *Id.* § 6(c)(1).

[17] *Id.* § 19(b)(1).

[18] *Id.* § 3(a)(1).

[19] *E.g.*, 87 Fed. Reg. at 15501-02.

B. Decentralization Is the Defining Feature of Blockchain-Based Systems.

Blockchain-based systems are precisely the opposite of exchanges: they operate and attract users because mechanistic, open source computer code has replaced a human-operated entity in the role of intermediary, which is likewise the source of the immense promise they hold for the future. They are not and cannot be exchanges because they do not operate like exchanges.

As noted above, blockchain's core innovation is that, for the first time in history, people who have no reason to trust each other or even know each other can cooperate to maintain a data set, process transactions that update that data, and collectively control the rules of a computational network. This decentralized architecture replaces the role of a human-operated intermediary with software. Participants who choose to use that software can transact on a peer-to-peer basis, relying on that software to perform any functions a middleman normally would. But decentralization is not just the operative principle of blockchain as a technology; it is also the foundation and animating spirit of the ecosystem, vast and growing daily, that values transparency, equal access, honest dealing, reliability, and security. By operationalizing this value system, blockchain is opening up new ways of business, commerce, community interaction, and finance that more and more people around the globe, particularly Americans, see as the foundation of a more egalitarian, innovative, and prosperous society.

Even in its current nascency, the functional diversity of the ecosystem and the potential it holds to improve the lives of everyday people are remarkable. Take blockchain-based banking, one of the most promising strands of what is known as decentralized finance, or DeFi. Blockchain enables users to store and access economic value without ceding control of their assets to banks or running the risks of data security breaches that plague financial institutions. This stored value can increasingly be brought to bear in day-to-day transactions just as a bank account or a line of personal credit can be, as more merchants and other vendors begin to accept payment in cryptocurrency. For this reason, DeFi offers a less centralized, more individually empowering solution that is developing to perform the same functions as the instruments of consumer banking and credit that traditionally have powered the retail economy.

Or take smart contracts. Blockchain enables parties to reduce their agreements to programming language that automatically effectuates promised performance when the contractual conditions precedent are met. Because the possibility of non-performance is obviated, or often already accounted for, there is no need for judicial or arbitral enforcement that add costs and other inefficiencies.

Or take decentralized lending. Borrowers and lenders, big and small, can rely on code that operates as contracts in which the borrower offers as collateral cryptocurrency or some other asset over which the smart contract can automatically give the lender control if the borrower fails to repay the loan. By eliminating the risk of non-recourse default, peer-to-peer lending thus diminishes the significance of one of banks' major advantages in lending, *i.e.*, the ability to spread loss across a large portfolio of loans. And by increasing the number of potential lenders, decentralized lending has the potential to increase credit availability. Blockchain thus makes

lending from one individual to another increasingly viable. These few examples—and we could give many more—illustrate the diversity in decentralized blockchain-based systems.

Importantly, the decentralized nature of these systems avoid or correct for the risks to which the '34 Act responds. They eliminate the risks of bad behavior by intermediaries such as those the '34 Act's rigorous requirements are intended to prevent. They permit anyone to participate rather than relying on gatekeepers, thus avoiding the risk that insiders take advantage of outsiders. And they involve peer-to-peer interactions with individualized negotiations in lieu of the identification of a market price that could affect the national economy; because they cannot set national market prices, these systems do not raise the prospect of creating the financial tsunamis that precipitated the Great Depression.

Our point is not that these systems are not important; they are, and they are becoming more so by the day. Rather, our point is that these systems lack the operational centrality that exchanges have. They do not set centralized authoritative market prices, and they do not depend on central human intermediaries who can abuse their authority.

The '34 Act's requirements, tailored as they are to the centralized nature of exchanges, make no sense when applied to decentralized blockchain-based systems. For instance, as we mentioned above, the '34 Act restricts membership on an exchange to dealers and brokers who are extensively regulated to keep them faithful to the interests of unsophisticated and distant investors. But one of the principal attractions of DeFi networks is precisely that they avoid that risk by not requiring participants to use intermediaries like brokers to transact. Forcing users of DeFi networks to register with the Commission like brokers would (even setting aside the crushing compliance burden) be pointless, because the risks that brokers introduce do not arise from a system where users represent their own interests.

Similarly, the '34 Act makes the existence and rules of exchanges subject to federal approval in light of the outsized effect that one human-operated entity can have on the market prices. Because decentralized lending networks facilitate peer-to-peer transactions rather than auction-type proceedings, they do not create a market price, let alone a market price able to exert the nationwide influence that prices on exchanges do. For this reason, there is no need to treat these networks as bearers of national policy like exchanges and thus subject to a requirement of federal approval.

C. Any Final Rule Should Clarify That It Does Not Cover Blockchain-Based Systems.

As noted above, we do not read the proposal to cover blockchain-based systems involving transactions in cryptocurrency. First and foremost, that is because the cryptographic tokens that incentivize participation in and provide an exchange medium for commercial transactions on these blockchain networks are generally not securities. But even if they were incorrectly deemed to be securities, we do not read the proposal to apply to the blockchain-based systems people use to transact in them because we do not think that the term "communication protocols," which the proposal does not define, covers these systems.

As we have explained, blockchain-based systems are decentralized and therefore do not raise the concerns that underlie the '34 Act; the term "communication protocols" should be read in light of this statutory purpose to exclude blockchain-based systems. Further, many of these systems are designed not for the acquisition of cryptocurrency as an investment but for the carrying on of business, commerce, personal finance, or community interaction. The communications they involve are therefore not for the sake of "interact[ing] and agree[ing] to the terms of [a] *trade*"[20] as that term is ordinarily understood, but rather for individuals to engage in these other kinds of enterprises.

Moreover, the proposal notably does not refer to, let alone substantively discuss, blockchain-based systems, either in its discussion of examples of CPSs or anywhere else. It would be unreasonable in the extreme to take the drastic step of covering blockchain-based systems without any discussion. That is especially true in light of the President's recent executive order committing the federal government to pursue "responsible development" and "reinforce United States[']leadership" in the burgeoning field of cryptocurrency.[21] That order highlights the need for an extensive intra-executive process to coordinate a carefully calibrated approach to this new field—just the opposite of haphazard coverage of cryptocurrency-related platforms and services in a rulemaking on other topics. It also highlights the need for an earnest and exhaustive engagement with developers of blockchain systems and tools and the public at large, which members of the President's administration are currently beginning. Those early efforts have been met with great appreciation by members of the public keenly interested in promoting blockchain innovation while sensibly addressing any risks through well-tailored regulatory regimes or self-regulatory solutions, including technological mitigation measures. Because we do not impute to the proposal the kind of unreasonability that disregards the process called for in the President's executive order, not to mention the APA, we do not believe that it covers blockchain-based systems.

Notwithstanding that the best reading of the proposal is that it does not cover blockchain-based systems, the text of the proposal remains far too broad. It is important for any final rule to provide complete clarity on this point. In a fast-growing sector like blockchain, regulatory certainty is at a premium; U.S-based developers and funders will be less likely to invest their time, energy, attention, and resources in the infrastructure needed to sustain blockchain's growth and unlock its promises for the future if they believe there is a chance—even if a modest one—that the networks will one day be declared subject to regulatory regimes that were crafted to address the risks posed by centralized structures.

There is no countervailing interest to set against the need for certainty as to the scope of this proposal. Neither the Commission nor anyone else has a valid interest in confusing the public about whether blockchain-based systems are covered by any final regulation. Even if the

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[20] *Id.* at 15646 (emphasis added).

[21] *Executive Order on Ensuring Responsible Development of Digital Assets* (Mar. 9, 2022), https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/09/executive-order-on-ensuring-responsible-development-of-digital-assets/.

costs of uncertainty are relatively modest because the best reading of the proposal is as we have described, nevertheless there is no point in imposing those costs for no corresponding benefit. Accordingly, declining to provide the requested clarity would be arbitrary and capricious.

We therefore urge the Commission to clarify in any final rule that the amended definition of "exchange" does not cover blockchain-based systems. That clarification might take the form of regulatory text added as a new subsection (3) to Rule 3b-16(b), along the following lines: "Offers access to a blockchain-based system."

D. Any Final Rule That Does Not Exclude Blockchain-Based Systems Could Not Reasonably Be Finalized, for It Would Leave Too Many Unanswered Questions.

If, contrary to our expectation, the proposal is designed to cover blockchain-based systems, the Commission will be unable to finalize that coverage based on the proposal as written. That is because the proposal leaves so many unresolved questions about why coverage of these systems is necessary and how it would work that coverage would be both irrational and unworkable. A small sample of those questions are the following:

- Do decentralized blockchain-based systems pose the dangers that the '34 Act is intended to avert? If so, how and to what extent?

- As we noted above, many blockchain-based systems are designed to facilitate retail commerce, peer-to-peer lending, community building, social interaction, and other non-investment activities. Indeed, the principal reason even for investment interest in cryptocurrency is its potential for non-investment use. Given that the '34 Act is concerned only with investment activities, is it appropriate to carve out non-investment-focused blockchain-based systems from coverage? What would be the effect of applying the '34 Act to blockchain-based systems on commerce, which has increasingly embraced cryptocurrencies as means of payment?

- Is it appropriate to dispense blockchain-based systems from compliance with the requirements of the '34 Act that would be especially unreasonable as applied to them? If so, which?

- The '34 Act requires members of exchanges to register with the Commission. Who are the "members" of a blockchain-based system? Are these members required to register with the Commission as broker-dealers notwithstanding that they do not intermediate for investors? Are all members required to register, even if they number in the hundreds, or thousands, or even greater? If so, why? What would be the effect of requiring such registration? How would reviewing and disposing of those registrations be administratively feasible at high volumes?

- The '34 Act requires exchanges to regulate their members. What would appropriate standards of conduct look like for members of a blockchain-based system, since those members do not intermediate for investors? How are these systems to administer the

requisite examinations for these standards?

- Blockchain-based systems generally include users within and without the United States. How are these systems to address inevitable conflicts between the obligations imposed by coverage under the '34 Act and foreign law? How does the Commission propose to enforce with respect to activities that a system takes with respect to foreign users? How are these systems to address ambiguity as to the location of members who choose to lawfully participate anonymously or pseudo-anonymously?

- Is it appropriate to require blockchain-based systems to receive the Commission's approval before beginning operations, given that these systems do not set nationwide securities prices and therefore do not affect the national interest in the way exchanges do?

- Blockchain and applications built on it constitute one of the fastest-evolving sectors in the technology universe. The rapid pace of innovation requires that systems have flexibility to modify their functionality and internal operating rules, perhaps on short notice. In light of this need for flexibility, is it appropriate to require blockchain-based systems to file for Commission approval before changing their internal rules under '34 Act § 19? What would the effect of this requirement be on the ability of blockchain-based systems to innovate?

- What is the cost of applying the '34 Act to blockchain-based systems, and how does it compare to any benefits of doing so?

- Is the application of the burdens of the '34 Act to blockchain-based systems consistent with the President's recent executive order on promoting U.S. leadership in the digital assets sector?

To finalize coverage of blockchain-based systems as exchanges, the Commission would need to answer these questions and many more. And to answer them, the Commission would first need to propose answers on which the public may comment. We and many others would have much to say about the Commission's proposed answers to these questions, but we have not yet had our "first opportunity … to offer comments" on them.[22] Absent proposed answers to these questions on which we and others can comment, the purposes of the APA's notice-and-comment requirement have not been served, and the Commission therefore lacks logical outgrowth to finalize any set of answers and any rule predicated on them.[23] Before it may

[22] *Ariz. Pub. Serv. Co. v. EPA*, 211 F.3d 1280, 1299 (D.C. Cir. 2000) (emphasis omitted).

[23] *See, e.g.*, *Horsehead Res. Dev. Co., Inc. v. Browner*, 16 F.3d 1246, 1268 (D.C. Cir. 1994) (holding that the agency failed to establish logical outgrowth because it did not specify adequately in the proposal the details of the standard it eventually adopted).

finalize any coverage of blockchain-based systems, then, the Commission would be required to reissue the proposal with answers to our questions spelled out for comment.

But for the reasons given, we do not believe the Commission intends to cover blockchain-based systems under the proposed revisions to Rule 3b-16. We therefore do not offer the many additional arguments we would otherwise make to dissuade the Commission from covering such systems or to persuade it to tailor such coverage and instead proceed to the balance of our comment.

II. Redefining the Term "Exchange" to Include CPSs for Potential Buyers and Sellers Violates the '34 Act, the APA, and the U.S. Constitution.

Were the Commission to cover blockchain-based systems as exchanges, that choice would be unlawful for another reason: the expansion of Rule 3b-16 to cover CPSs that facilitate the communication of mere trading interest, as the proposal seeks to do, is inconsistent with the '34 Act, is arbitrary and capricious in violation of the APA, and impinges on protected speech contrary to the First Amendment.

A. Expanding the Definition of the Term "Exchange" Loses Sight of the Text and Purpose of the '34 Act.

The proposal seeks to redefine the term "exchange" to include systems that assist people to communicate about their potential interest in buying or selling securities at some point in the future and to find other people who share that interest. But this reinterpretation runs afoul of the text of the '34 Act, which defines an exchange as a group offering a place or facilities for the orders of actual (not potential) buyers and sellers to be brought together by intermediaries (not to find and negotiate with each other). Congress selected this definition for a reason: as discussed briefly above, it tracks Congress's focus on the important operational role that intermediaries traditionally play in American finance. The proposal, by contrast, would cover as exchanges instrumentalities of commerce that Congress never intended.

1. An "exchange," according to the '34 Act, is a group which provides "a market place or facilities *for bringing together purchasers and sellers* of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood."[24] In this sentence, "purchasers and sellers" are the direct objects of the verbal phrase "bringing together." As direct objects, the purchasers and sellers are acted upon by the subject whose action the verb describes; they are not themselves the actors. They are the ones brought together, not the bringers. In other words, the '34 Act defines an exchange as a group providing a place or facilities for someone other than a purchaser or seller to "bring together" purchasers and sellers—that is, to intermediate between them.

[24] '34 Act § 3(a)(1) (emphasis added).

This definition makes perfect sense in light of Congress's express concern with the role of the exchanges as central intermediaries of securities transactions. And it is consistent with the Commission's own approach in its 1998 final rule, in which the Commission defined an exchange as a group that itself "[u]ses … methods" to bring together purchasers and sellers.[25] The Commission's approach up until the present day, then, has recognized that an exchange must involve intermediation between buyers and sellers.

One reason for the instant rulemaking is that the Commission now wishes to depart from its earlier approach. It proposes to redefine an exchange as a group that "makes available" methods of interaction so that it may cover as exchanges systems that "take a more passive role in providing to their participants the means and protocols to interact, negotiate, and come to an agreement."[26] But there is no "bringing together" of purchasers and sellers who use a system to find each other and negotiate; such buyers and sellers would be the subjects of action, not its objects. The proposal reads the definition as if it said that an exchange is "for purchasers and sellers to come together," but that is not the definition Congress wrote. Nor does the proposal follow Congress's focus on the intermediating role of exchanges.

2. The statute makes clear that an exchange exists to bring together "purchasers and sellers," that is, people *actually engaged* in purchasing and selling securities. A purchaser or seller is not someone who may purchase or sell some day, anymore than a doctor is someone who may one day practice medicine or a soldier is someone who may one day enlist. Rather, purchasers and sellers are those who are engaged in purchasing and selling in the present. Every person is a potential purchaser or seller of securities, but the Act does not cover places or facilities in which are brought together those who have nothing but an interest in transacting someday. Rather, an exchange exists for bringing together those who are actually purchasing and selling securities. To qualify as actually engaged in purchasing or selling, a person must at the least have indicated a firm offer to transact, that is, an order to buy or sell a given quantity at a given price.

This part of the statutory definition also makes good sense in light of Congress's focus in the '34 Act on the central role of exchanges in American economic life. Exchanges have this central role due to their ability to set market prices that ramify throughout the country. They are able to set market prices because buyers and sellers submit firm offers, which the exchanges then match up in an auction-type process that produces the market price. If an exchange were to match people who may one day have an interest in buying or selling (leaving it to the matched people to decide among themselves whether they would like to transact and, if so, on what terms) then the matching process would result merely in a series of individually negotiated prices that

[25] 63 Fed. Reg. at 70918.

[26] 87 Fed. Reg. at 15506.

do not reflect the price at which a given security may be bought or sold at a given moment and hence that would not set a market price for that security across the country.

Notably, the statutory approach is also the one the Commission previously adopted. In its 1998 rulemaking, the Commission explained that, to qualify as an exchange, a system must bring together "firm indication[s] of a willingness to buy or sell a security."[27] *Contra* the proposal,[28] this limitation does not merely reflect the state of trading technology at the time of the rulemaking. Rather, that rulemaking shows that the Commission was well aware of systems that matched tentative or potential trading interest yet rejected regulating as an exchange any "system that displays … non-firm indications of interest."[29] The Commission made clear at the time that it drew this limitation on the scope of Rule 3b-16 from the text of the '34 Act.[30]

Now, the Commission proposes to undo the limitation from the 1998 rulemaking, regulating as exchanges systems that merely assist potential buyers and sellers to find each other. But extending the coverage of Rule 3b-16 to systems for matching up non-firm trading interests would read the words "purchasers" and "sellers" out of the statute and would result in "exchanges" on which individualized negotiations fail to yield a market price for securities. For the reasons we have given above, such systems are a far cry from those that Congress intended to regulate in 1934.

3. We note that the second half of the definition of "exchange" reads "for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood", and that the Commission does not argue the second half authorizes coverage of CPSs involving the communication of mere non-firm interest. Rather, the Commission argues that CPSs "today perform similar market place functions of bringing together buyers and sellers as registered exchanges and ATSs."[31] Thus, the Commission invokes, and the proposal must rise or fall on, the first half of the definition.

But even if the Commission had invoked the definition's second half, its proposed amendments would nevertheless be unlawful, for the second half likewise permits regulation as an "exchange" only of a central body that intermediates for investors. That is because, for the

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[27] 63 Fed. Reg. at 70849.

[28] 87 Fed. Reg. at 15500.

[29] 63 Fed. Reg. at 70850. The Commission's failure to acknowledge the basis of its own prior rulemaking and its concomitant failure to distinguish its prior reasoning would make any final rule arbitrary and capricious.

[30] *Id.* at 70849.

[31] 87 Fed. Reg. at 15498.

reasons set forth above, at the heart of "the functions commonly performed by a stock exchange as that term is generally understood" is service as an operational intermediary for securities transactions. That concept is evident throughout the Pecora investigation's consideration of the exchanges of its day, against the backdrop of which Congress enacted the '34 Act. Likewise, it is evident in the statement of policy goals that Congress wrote right into the '34 Act.[32] Indeed, as the 1998 rulemaking shows, the role of central intermediary has been at the core of "the functions commonly performed by a stock exchange" for decades and up until the present day.

B. The Proposal Seeks to Expand the Definition of "Exchange" for Policy Goals Unrelated to Congress's Objectives in Defining That Term.

The proposal admits that its expansion of the term "exchange" is driven by policy considerations rather than required by the text of the '34 Act. For the Commission's redefinition to survive review, those considerations must not go beyond the policies that Congress had in mind in enacting the statute.

In drawing up its definition of "exchange," Congress's goal was clear: to identify those organizations that operate in a manner that warrants the extensive restrictions the '34 Act spells out for exchanges. But remarkably, the proposal does not ask whether the CPSs it seeks to regulate fall within that category. It does not try to show that these CPSs could operate successfully under the framework for exchanges or that that framework is necessary to remedy any dangers CPSs pose, dangers that must be of a kind with those exchanges present. It does not attempt to calculate the costs to these CPSs of complying with the obligations that come with exchange status. Indeed, it does not even deny that the rigorous regulatory framework that Congress enacted for exchanges is a poor fit for these CPSs.

The reason for these omissions is that the proposal takes the position that "many Communication Protocol Systems would not elect to register as an exchange but instead would register as a broker-dealer and comply with Regulation ATS because the regulatory costs associated with registering and operating as an exchange would be higher than those associated with registering as a broker-dealer and complying with Regulation ATS."[33] So confident is the Commission in this prediction that it estimates the benefits and costs for the proposal by reference to the benefits and costs of compliance with the broker-dealer requirements rather than the requirements for exchanges.[34] The proposal's acknowledged effect, then, will be to cover CPSs as broker-dealers rather than exchanges. The proposal does not attempt to show that applying the exchange provisions of the '34 Act to CPSs is necessary or feasible *because the*

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[32] '34 Act § 2.

[33] 87 Fed. Reg. at 15618.

[34] *Id.* at 15618-15629.

Commission does not plan to apply those provisions to them (at least, not in the vast majority of cases).

The desirability of covering CPSs as broker-dealers may be relevant to interpretation of the terms "broker" and "dealer" in the '34 Act—but not to interpretation of the word "exchange." That is because Congress, when defining "exchange," did so to identify the organizations that should be subject to the regulatory regime it designed for exchanges. The Commission's desire to cover CPSs as broker-dealers is simply irrelevant to Congress's purposes in defining the term "exchange"—and this purpose, after all, must be the touchstone for the Commission's interpretation of the term.

The Commission's objective is impermissible for another reason: Congress has defined the terms "broker" and "dealer" in the '34 Act,[35] and CPSs are neither (which is presumably why the proposal seeks to redefine the word "exchange" rather than these terms). The Commission, being a creature of statute and endowed only with those powers Congress has given it,[36] is bound by Congress's decision about which persons and entities should be covered as broker-dealers under the '34 Act. It is not free to cover entities Congress has decided are not broker-dealers. That does not change just because the Commission aims to persuade CPSs to "volunteer" for coverage by holding over their heads more onerous regulation as an exchange.

The proposal's approach displays textbook arbitrariness. Long ago the Supreme Court explained that "an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider."[37] Here, the proposal ignores the factors Congress intended to be considered in defining the word "exchange" and instead considers factors Congress did not intend. For these reasons, any rule finalizing the proposal's coverage of CPSs would violate the APA.

C. The Proposal Is Destructively and Pointlessly Vague.

By adhering to the '34 Act's focus on central intermediaries, Rule 3b-16 as currently written achieves the benefit of clarity. The rule limits itself to those who intermediate for investors—who undertake the "bringing together" of buyers and sellers contemplated in the '34 Act—for it applies only to those who "use" established, non-discretionary methods to match up orders. This limitation provides clarity for potentially regulated entities, who can easily determine by reference to their own actions whether they are "using" such methods.

But the proposal would discard this clarity. It would broaden the rule to include entities who do not themselves take an active role in matching up orders but instead simply contribute in some manner to the efforts of buyers and sellers (and even potential buyers and sellers) to match themselves or even to identify each other. Knowing with any reasonable degree of certainty

[35] '34 Act § 3(a)(4)-(5).

[36] *Michigan v. EPA*, 268 F.3d 1075, 1081 (D.C. Cir. 2001).

[37] *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

whether one *contributes* to the efforts of others to transact, or even to simply inform themselves in contemplation of perhaps transacting one day, is often a difficult—indeed impossible—task. The proposal offers no help to make it feasible.

If finalized in its current form, the proposal would cover groups that "make available" established, non-discretionary methods for trading. Such a method is "available" when it exists for use by buyers and sellers, and anyone who contributes to its existence for such use—from the owners of a system to its designers and programmers to ConsenSys itself with its software platforms—can be said to "make" it available. We do not think that the Commission intends to cover all these groups as exchanges, including us, but the proposal gives no guidance about what kind of causal activity qualifies as "making available" for its purposes. The public will be left to guess, with the risk of stiff penalties handed out at the Commission's unbridled discretion for getting it wrong.

Further, the proposal does not state that coverage as an exchange requires that a group *intends* to make available a covered method for trading, or even that a group *knows* that its action contributes to making such a method available. Does a software development company that designs a multi-purpose program qualify as an exchange if one of its customers uses that program to run a CPS that helps buyers and sellers of securities find each other, even if the developer did nothing to encourage this use? What if the developer never anticipated this use or learned of it only after having licensed its product? The proposal does not say whether developers and others in these situations qualify as exchanges, leaving broad swaths of the developer community to make their best guess as to their obligations under the law.

This confusion is only compounded by the proposal's refusal to define the key term "communication protocols."[38] The proposal gives a few examples of such protocols but makes clear that the list is "not exhaustive" and that the Commission intends to "take an expansive view of what would constitute 'communication protocols'" for purposes of its proposed amendments.[39] Is an app that allows customers to use cryptocurrency to pay for consumer goods a communication protocol? Nothing in the regulatory text says it is not.

Developers such as those that work with ConsenSys, as well as others across the technology universe, would thus be left in an untenable position: the proposal requires them to register as an exchange if they "make available" "communication protocols," but refuses to tell them what either of those phrases means. This vagueness will leave hundreds of thousands of people and businesses uncertain about whether they are covered by the proposal's amendments and impose the costs of regulatory uncertainty on vital sectors of the American economy. The proposal nowhere acknowledges this uncertainty or the costs it creates, let alone shows that these costs are justified by some benefit arising from leaving these key phrases undefined. This vagueness cannot stand under the APA.

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[38] *See* 87 Fed. Reg. at 15507.

[39] *Id.*

Nor is that statute the only law offended by the proposal's approach. The Constitution's Due Process Clause forbids regulating "in terms so vague that men of common intelligence must necessarily guess at its meaning."[40] For the reasons we have given above, if finalized the proposal would leave developers without a way to divine the line between unregulated software development and regulated "making available" of a "communication protocol." Leaving them to guess about whether they fall within the Commission's regulatory authority is not a licit option under our Constitution.

To finalize amendments to Rule 3b-16, the Commission must define the phrases "make available" and "communication protocol." Because the public (ourselves included) would wish for, and are entitled to, the opportunity to comment on these definitions, the Commission must withdraw the current proposal and, if it chooses to proceed with the rulemaking, reissue it with the meaning of these key phrases spelled out and the questions raised in this subsection answered.

D. The Proposal Fails to Show That It Will Do More Good Than Harm.

In the course of its some 200 pages of the Federal Register, the proposal remarkably omits one thing: a single example of a real-world harm that deeming exchanges the CPSs that assist buyers and sellers to find each other would have prevented. The proposal points out that, without amendments to Rule 3b-16, certain CPS "participants cannot avail themselves of the same investor protections, fair and orderly market principles, and Commission oversight that apply to today's registered exchanges or ATSs,"[41] but it fails to offer any evidence that these participants *need* these sorts of protections. And because the proposed amendments would apply to CPSs that are not engaged in the intermediation that in 1934 characterized (and continues to characterize) exchanges, there is no reason to believe that participants in these CPSs are at risk of the harms that the '34 Act is designed to prevent. The Commission thus has failed to show that the proposal, if finalized, would address a real problem—and, of course, a regulation aiming at a problem is "highly capricious if that problem does not exist."[42]

The proposal claims that its amendments are necessary to prevent trading systems that are presently not subject to Rule 3b-16 from receiving an unfair advantage over systems that are.[43] But if these two types of systems pose different risks, they *should* be subject to different regulatory regimes, just as a dangerous chemical is more stringently regulated than (and thus at a competitive disadvantage versus) a harmless one. The question the Commission should ask is not whether systems that present different risks should or should not have advantages over one another, but whether the systems really present different risks. If some of the systems that now

[40] *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239 (2012).

[41] 87 Fed. Reg. at 15502.

[42] *Alltel Corp. v. FCC*, 838 F.2d 551, 561 (D.C. Cir. 1988).

[43] 87 Fed. Reg. at 15503.

qualify as exchanges do not in fact pose risks that are of concern to the '34 Act, then the Commission should consider rescinding coverage of those systems rather than expanding coverage to systems that do not present these risks.

But even accepting for the sake of argument that the proposal responds to a real problem, it does not show that its solution to that problem is worth its considerable costs. Even on the Commission's estimate—which omits the costs of regulatory uncertainty as detailed above—the proposal would cost several million dollars annually, which the users of regulated systems would presumably bear.[44] But the Commission is unable to estimate, either quantitatively or qualitatively, the value of *any* of the benefits it claims the proposal would produce.[45] It does not opine as to whether those benefits will exceed—or even justify—its costs.[46]

The Supreme Court has made clear that "reasonable regulation ordinarily requires paying attention to the advantages and the disadvantages of agency decisions."[47] A rulemaking that declines to assess whether its benefits are worth its costs is generally arbitrary and capricious, for a regulation that does substantially more harm than good is irrational, and therefore so is the failure to inquire as to the relation of a regulation's costs to its benefits.[48] This failure is all the more egregious because it means the proposal is unable to say whether it would on net help or harm efficiency and capital formation,[49] a question Congress has directed the Commission to answer in each rulemaking.[50]

E. If Finalized, the Proposal Would Infringe Protected Speech in Violation of the First Amendment.

Under the proposal, whether a system is regulated as an exchange turns on the content of the speech it facilitates. The current Rule 3b-16 makes coverage as an exchange turn only on verbal acts, *i.e.*, the consent to buy or sell a particular quantity of a security at a stated price. But the proposed amendments would go further, covering a system as an exchange because it facilitates communication by people about what they might do some day. Such statements are not verbal acts but speech.

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[44] *Id.* at 15623.

[45] *Id.* at 15618-23.

[46] *Id.* at 15618-15639.

[47] *Michigan v. EPA*, 135 S. Ct. 2699 (2015).

[48] *Id.*

[49] 87 Fed. Reg. at 15639.

[50] *See* 15 U.S.C. § 77b(b); 15 U.S.C. § 78c(f).

The proposal would create a regulation that treats different speech differently. A system that helps people communicate about their interest in the 2022 baseball season or in swapping bikes would not be regulated as an exchange, while a system that helps people communicate about their interest in buying or selling securities is. Laws "that target speech based on its communicative content … are presumptively unconstitutional"; typically they may be upheld only upon surviving strict scrutiny, which requires both a compelling interest and narrow tailoring to achieve it.[51] The Supreme Court has applied a somewhat less demanding standard to restrictions of commercial speech, which may be sustained if "proportion[ate]" to a substantial state interest.[52] (The Court has applied a lesser standard to laws compelling disclosures necessary to prevent consumer fraud, but that is not the nature of the restriction at issue here.[53])

Regardless of whether strict scrutiny or the less demanding commercial speech standard applies, a final rule like the proposal will not satisfy it. The Commission does not show either a compelling or a substantial interest in covering CPSs that involve communication of a non-firm interest, because it does not demonstrate any actual problems that its own 1998 regulation fails to address. Moreover, because the proposal leaves its boundaries vague, it cannot show the precise scope of its application and therefore cannot show that that scope, whatever it may be, is either narrowly or proportionately drawn to achieve its interest.

The proposal does not even discuss these First Amendment issues. Indeed, it does not appear to recognize that it is treading on constitutionally suspect territory, for the words "First Amendment" or "freedom of speech" do not appear in the proposal. This failure to discuss its constitutional implications amounts to a grave defect in its own right, for it deprives the public of any opportunity to comment on whether the Commission's asserted interest is compelling or substantial and its means narrowly- or proportionately-tailored. Accordingly, if the Commission chooses to proceed with this rulemaking, it must first reissue the proposal with a full exploration of the First Amendment issues we have raised here.

CONCLUSION

For the reasons we have given, we respectfully urge the Commission to clarify in any final rule that blockchain-based systems do not fall within the scope of its amendments to Rule 3b-16. We also urge that the Commission address the deficiencies we have identified, which requires that the Commission withdraw the proposal and (if it elects to proceed with the rulemaking) reissue it offering the modifications and analysis we have called for.

At the very least, the Commission should extend the deadline for filing comments in this rulemaking. Executive Order 12866, first issued by President Clinton and endorsed by every

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[51] *Reed v. Town of Gilbert*, 135 S. Ct. 2218, 2226, 2231 (2015).

[52] *Central Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of N.Y.*, 447 U.S. 557, 564 (1980).

[53] *See Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio*, 471 U.S. 626 (1985).

President of both parties since, explains that "each agency should afford the public a meaningful opportunity to comment on any proposed regulation, which in most cases should include a comment period of not less than 60 days" from the time the proposed regulation is published in the Federal Register.[54] While shorter comment periods may be justified on occasion by exigent circumstances, the Commission does not suggest that such circumstances are present here. Nor could it, as it has failed to adduce a *single instance* of real-world harm in the proposal, let alone urgent injury that will result absent swift action. In a voluminous, complex rulemaking like this one, involving the definition of one of the '34 Act's foundational terms and the intricacies of new and rapidly-evolving technologies, the Commission must afford the regulated public at least the full 60 days for which Executive Order 12866 calls.

Respectfully Submitted,

CONSENSYS SOFTWARE INC.

by:

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[54] E.O. 12866 § 6(a)(1).